

## CASE STUDY

# Short Run, Long-Term Results

## Marietta, OH

### OWNER

Ohio DOT, Columbus, OH

### ENGINEERS

Ohio DOT, Columbus OH

### CONTRACTORS

Ohio DOT, Columbus, OH

### INSTALLATION DATE

1981

### PRODUCTS

40' (12 m) of 24" (600 mm) Single Wall Pipe

### DESCRIPTION

In 1981, ADS was beginning to manufacture 18" (450 mm) and 24" (600 mm) Single Wall pipe. With acid mine storm water presenting severe drainage pipe challenges under State Route 145, the Ohio Department of Transportation gave the corrugated, high-density polyethylene pipe a chance.

Installed under State Route 145, the 24" (600 mm) single wall corrugated pipe was the first use of HDPE by ODOT as a highway cross drain. The HDPE pipe replaced Nexon-coated corrugated steel pipe, which deteriorated after five years of use from the challenges of the mine water run-off.

The single wall pipe was able to hold up to the challenges of the area and survived a 500-year storm in 1997 when 15" (375 mm) of rain fell in 36 hours. The cover over the pipe ranged from 15"-18" (375-450 mm) and bankrun gravel was utilized as the cover.

The pipe was regularly inspected with little change to the pipe or pavement through 2007.

